

## ANALYTICAL SUMMARY REPORT

April 27, 2012

Atkins North America Missoula  
1120 Cedar St  
Missoula, MT 59802-3911

Workorder No.: B12042070

Project Name: Poplar PWS

Energy Laboratories Inc Billings MT received the following 5 samples for Atkins North America Missoula on 4/24/2012 for analysis.

Sample ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
B12042070-001	4298-COP1-UNT1	04/24/12 9:22	04/24/12	Aqueous	Anions by Ion Chromatography Solids, Total Dissolved
B12042070-002	4298-COP1-TRE1	04/24/12 10:02	04/24/12	Aqueous	Same As Above
B12042070-003	4298-COP1-DIST1	04/24/12 10:42	04/24/12	Aqueous	Same As Above
B12042070-004	4298-COP4-UNT1	04/24/12 8:00	04/24/12	Aqueous	Same As Above
B12042070-005	Trip Blank Lot022312, B-TS, SHP0255	04/24/12 8:00	04/24/12	Trip Blank	

The analyses presented in this report were performed by Energy Laboratories, Inc., 1120 S 27th St., Billings, MT 59101, unless otherwise noted. Any exceptions or problems with the analyses are noted in the Laboratory Analytical Report, the QA/QC Summary Report, or the Case Narrative.

The results as reported relate only to the item(s) submitted for testing.

If you have any questions regarding these test results, please call.

Report Approved By:



## LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

**Client:** Atkins North America Missoula  
**Project:** Poplar PWS  
**Lab ID:** B12042070-001  
**Client Sample ID** 4298-COP1-UNT1

**Report Date:** 04/27/12  
**Collection Date:** 04/24/12 09:22  
**DateReceived:** 04/24/12  
**Matrix:** Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
<b>PHYSICAL PROPERTIES</b>							
Solids, Total Dissolved TDS @ 180 C	1180	mg/L		10		A2540 C	04/26/12 13:10 / ser
<b>INORGANICS</b>							
Chloride	232	mg/L	D	2		E300.0	04/25/12 17:00 / jrs

**Report Definitions:**  
RL - Analyte reporting limit.  
QCL - Quality control limit.  
D - RL increased due to sample matrix.

MCL - Maximum contaminant level.  
ND - Not detected at the reporting limit.



## LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

**Client:** Atkins North America Missoula  
**Project:** Poplar PWS  
**Lab ID:** B12042070-002  
**Client Sample ID** 4298-COP1-TRE1

**Report Date:** 04/27/12  
**Collection Date:** 04/24/12 10:02  
**DateReceived:** 04/24/12  
**Matrix:** Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
<b>PHYSICAL PROPERTIES</b>							
Solids, Total Dissolved TDS @ 180 C	1170	mg/L		10		A2540 C	04/26/12 13:11 / ser
<b>INORGANICS</b>							
Chloride	234	mg/L	D	2		E300.0	04/25/12 17:11 / jrs

**Report Definitions:**  
RL - Analyte reporting limit.  
QCL - Quality control limit.  
D - RL increased due to sample matrix.

MCL - Maximum contaminant level.  
ND - Not detected at the reporting limit.



## LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

**Client:** Atkins North America Missoula  
**Project:** Poplar PWS  
**Lab ID:** B12042070-003  
**Client Sample ID** 4298-COP1-DIST1

**Report Date:** 04/27/12  
**Collection Date:** 04/24/12 10:42  
**DateReceived:** 04/24/12  
**Matrix:** Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
<b>PHYSICAL PROPERTIES</b>							
Solids, Total Dissolved TDS @ 180 C	1170	mg/L		10		A2540 C	04/26/12 13:13 / ser
<b>INORGANICS</b>							
Chloride	225	mg/L	D	2		E300.0	04/25/12 17:22 / jrs

**Report Definitions:**  
RL - Analyte reporting limit.  
QCL - Quality control limit.  
D - RL increased due to sample matrix.

MCL - Maximum contaminant level.  
ND - Not detected at the reporting limit.



## LABORATORY ANALYTICAL REPORT

Prepared by Billings, MT Branch

**Client:** Atkins North America Missoula  
**Project:** Poplar PWS  
**Lab ID:** B12042070-004  
**Client Sample ID** 4298-COP4-UNT1

**Report Date:** 04/27/12  
**Collection Date:** 04/24/12 08:00  
**DateReceived:** 04/24/12  
**Matrix:** Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
<b>PHYSICAL PROPERTIES</b>							
Solids, Total Dissolved TDS @ 180 C	1190	mg/L		10		A2540 C	04/26/12 13:15 / ser
<b>INORGANICS</b>							
Chloride	232	mg/L	D	2		E300.0	04/25/12 17:33 / jrs

**Report Definitions:**  
RL - Analyte reporting limit.  
QCL - Quality control limit.  
D - RL increased due to sample matrix.

MCL - Maximum contaminant level.  
ND - Not detected at the reporting limit.

## QA/QC Summary Report

Prepared by Billings, MT Branch

**Client:** Atkins North America Missoula

**Report Date:** 04/27/12

**Project:** Poplar PWS

**Work Order:** B12042070

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
<b>Method: A2540 C</b>							Batch: TDS120426B		
<b>Sample ID: MBLK2</b>	Method Blank				Run: BAL #11_120426C				04/26/12 12:56
Solids, Total Dissolved TDS @ 180 C	ND	mg/L	10						
<b>Sample ID: LCS2</b>	Laboratory Control Sample				Run: BAL #11_120426C				04/26/12 12:59
Solids, Total Dissolved TDS @ 180 C	1640	mg/L	10	99	90	110			
<b>Sample ID: B12042005-006A MS</b>	Sample Matrix Spike				Run: BAL #11_120426C				04/26/12 13:03
Solids, Total Dissolved TDS @ 180 C	3060	mg/L	10	93	90	110			
<b>Sample ID: B12042005-007A DUP</b>	Sample Duplicate				Run: BAL #11_120426C				04/26/12 13:04
Solids, Total Dissolved TDS @ 180 C	1680	mg/L	10		90	110	0.1	5	

### Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

## QA/QC Summary Report

Prepared by Billings, MT Branch

**Client:** Atkins North America Missoula

**Report Date:** 04/27/12

**Project:** Poplar PWS

**Work Order:** B12042070

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
<b>Method: E300.0</b>							Analytical Run: IC203-B_120424A		
<b>Sample ID: ICV042412-11</b>	Initial Calibration Verification Standard								04/24/12 14:08
Chloride	24.6	mg/L	1.0	98	90	110			
<b>Method: E300.0</b>							Batch: R184051		
<b>Sample ID: ICB042412-12</b>	Method Blank								04/24/12 14:19
Chloride	ND	mg/L	0.2						
<b>Sample ID: LFB042412-13</b>	Laboratory Fortified Blank								04/24/12 14:30
Chloride	24.4	mg/L	1.0	98	90	110			
<b>Sample ID: B12042043-004AMS</b>	Sample Matrix Spike								04/25/12 16:26
Chloride	1330	mg/L	13	99	90	110			
<b>Sample ID: B12042043-004AMSD</b>	Sample Matrix Spike Duplicate								04/25/12 16:37
Chloride	1330	mg/L	13	99	90	110	0.1	20	

### Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

# Workorder Receipt Checklist



Atkins North America Missoula

B12042070

Login completed by: Jill M. Lippard

Date Received: 4/24/2012

Reviewed by: BL2000\jklir

Received by: jrj

Reviewed Date: 4/25/2012

Carrier Hand Del  
name:

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time? (Exclude analyses that are considered field parameters such as pH, DO, Res Cl, Sulfite, Ferrous Iron, etc.)	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	

Container/Temp Blank temperature: 0.6°C On Ice, Temp Blank

Water - VOA vials have zero headspace? Yes ☐ No ☐ No VOA vials submitted ☒

Water - pH acceptable upon receipt? Yes ☒ No ☐ Not Applicable ☐

Contact and Corrective Action Comments:

None





# Chain of Custody and Analytical Request Record

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PLEASE PRINT (Provide as much information as possible.)

Company Name: <b>ATKINS NA Inc</b>		Project Name, PWS, Permit, Etc. <b>Poplar PWS</b>		Sample Origin State: <b>MT</b>		EPA/State Compliance: Yes <input type="checkbox"/> No <input type="checkbox"/>	
Report Mail Address: <b>1120 Cedar St Missoula, MT 59802</b>		Contact Name: <b>Brent Merritt</b> Phone/Fax: <b>406 240-0573</b>		Email: <b>BRENT.MERRITT@ATKINSGLOBAL.COM</b>		Sampler: (Please Print) <b>Brent Merritt</b>	
Invoice Address: <b>SAME</b>		Invoice Contact & Phone: <b>CHRIS MAT 406 532-7275</b>		Purchase Order: <b>10004298</b>		Quote/Bottle Order: <b>57463</b>	
Special Report/Formats: <input type="checkbox"/> DW <input type="checkbox"/> POTWWWTP <input type="checkbox"/> State: <input type="checkbox"/> Other: <input type="checkbox"/> EDD/EDT (Electronic Data) Format: <input type="checkbox"/> LEVEL IV <input type="checkbox"/> NELAC		ANALYSIS REQUESTED <b>SEE ATTACHED</b>		Contact ELJ prior to RUSH sample submittal for charges and scheduling - See instruction page		Shipped by: <b>HAND</b> Cooler ID(s):	
Number of Containers Sample Type: A W S V B O DW Vegetation Bioassay Other DW - Drinking Water		MATRIX		Standard Turnaround (TAT)		Receipt Temp: <b>06 °C</b> On Ice: <b>Y</b> Custody Seal: <b>Y</b> On Bottle: <b>Y</b> On Cooler: <b>Y</b> Intact: <b>Y</b> Signature Match: <b>Y</b>	
SAMPLE IDENTIFICATION (Name, Location, Interval, etc.)		Collection Date		Collection Time		LABORATORY USE ONLY	
1 4298-COP1-UNT1		4/24/12		922		2042070-001	
2 4298-COP1-TRE1		4/24/12		1002		-002	
3 4298-COP1-DIST1		4/24/12		1042		-003	
4 4298-COP4-UNT1		4/24/12		800		-004	
5 TRIP BLANK						-005	
6 TEMP BLANK							
7							
8							
9							
10							
Relinquished by (print): <b>Brent E. Merritt</b>		Date/Time: <b>4/24/12 1640</b>		Signature: <b>[Signature]</b>		Received by (print):	
Relinquished by (print):		Date/Time:		Signature:		Received by (print):	
Custody Record MUST be Signed		Sample Disposal: <b>Return to Client</b>		Lab Disposal: <b>X</b>		Received by Laboratory: <b>[Signature]</b> Date/Time: <b>4/24/12 16:40</b>	

In certain circumstances, samples submitted to Energy Laboratories, Inc. may be subcontracted to other certified laboratories in order to complete the analysis requested. This serves as notice of this possibility. All sub-contract data will be clearly notated on your analytical report. Visit our web site at [www.energielab.com](http://www.energielab.com) for additional information, downloadable fee schedule, forms, and links.